

Natural Resource Plan

Environmental Impact Statement

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DRAFT ENVIRONMENTAL IMPACT STATEMENT

NATURAL RESOURCE PLAN

**Alabama, Georgia, Kentucky, Mississippi, North Carolina,
Tennessee, and Virginia**

PREPARED BY:
TENNESSEE VALLEY AUTHORITY

MARCH 2011

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Environmental Impact Statement

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Proposed project: Natural Resource Plan
Alabama, Georgia, Kentucky, Mississippi, North Carolina,
Tennessee, and Virginia

Lead agency: Tennessee Valley Authority

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Abstract: The Tennessee Valley Authority (TVA) proposes to adopt a Natural Resource Plan (NRP) to determine how TVA will manage its natural resources over the next 20 years. On May 19, 2008, the TVA Board of Directors approved the TVA Environmental Policy. The Environmental Policy sets forth principles to guide TVA in reducing the environmental impacts of its activities while continuing to provide reliable and affordable power to the Valley. By establishing the Environmental Policy, TVA committed to a more systematic and integrated approach to managing stewardship. The NRP addresses the planning processes and Environmental Policy objectives related to Water Resource Protection and Improvement, Sustainable Land Use, and Natural Resource Management. This environmental impact statement examines potential impacts associated with implementing the NRP proposed for these resources and reasonable alternative management strategies, including a No Action Alternative. Under the No Action Alternative, TVA would continue its current management approach. Under three Action Alternatives (Alternatives B, C, and D), TVA would alter its management approach to reflect the implementation of varying levels of activities across numerous stewardship programs. TVA's Preferred Alternative is Alternative D.

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SUMMARY

PURPOSE OF AND NEED FOR ACTION

On May 19, 2008, the Tennessee Valley Authority (TVA or the Agency) Board of Directors (TVA Board) approved the TVA Environmental Policy. A biennial review of this policy occurred in August 2010 and did not result in an update or revision. The Environmental Policy sets forth principles to guide TVA in the reduction of the environmental impact of its activities while continuing to provide reliable and affordable power to the Tennessee Valley region. The Natural Resource Plan (NRP) addresses the planning processes and Environmental Policy objectives related to Water Resource Protection, Sustainable Land Use, and Natural Resource Management.

Historically, TVA has taken various approaches to managing biological, cultural, recreation, and water resources and to planning the use of reservoir lands. In its Environmental Policy, TVA committed to a more systematic and integrated approach to natural resource stewardship. The purpose of the NRP is to develop a plan to guide TVA's responsible management of natural resources over the next 20 years while upholding TVA's mission and renewed vision and balancing stewardship objectives with sound business practices. The following objectives and critical success factors in the Environmental Policy bear on this:

Water Resource Protection and Improvement Objective: TVA will improve reservoir and stream water quality, reduce the impact of its operations, and leverage alliances with local and regional stakeholders to promote water conservation.

Critical Success Factors

- *Integrate the impacts of water quality and quantity into the long-range planning and decision-making process.*
- *Promote the integration of energy efficiency and water conservation into community planning and building construction.*
- *Collaborate in community outreach and partnerships through voluntary demonstrations of the efficient use of water resources and protection of water quality.*

Sustainable Land Use Objective: TVA will strive to maintain the lands under its management in good environmental health, balancing their multiple uses, and will improve its land transaction processes to support sustainable development.

Critical Success Factors

- *Actively manage TVA lands to meet the desired conditions for their purpose as defined in the reservoir land management plans.*
- *Improve reservoir shoreline conditions through collaborative partnership initiatives and balance the multiple uses of the reservoirs in accordance with TVA's Land Policy and Shoreline Management Policy.*

- *Manage TVA lands, mineral rights, and shoreline access to better achieve environmental commitments while meeting the needs for recreation, residential access, and economic development.*

Natural Resource Management Objective: TVA will be a leader in natural resource management through the implementation of sustainable practices in dispersed recreation while balancing the protection of cultural, heritage, and ecological resources.

Critical Success Factors

- *Allow for properly managed, ecologically friendly dispersed recreation while balancing the protection of biological, cultural, and heritage resources.*
- *Promote ecological diversity and wildlife habitats on TVA lands through partnerships and voluntary initiatives.*
- *Increase the level of environmental quality and management consistency among TVA-managed and -leased recreation facilities.*

This EIS evaluates various approaches to management of biological and cultural resources, recreation, reservoir lands planning, and water resources. The general goal of the NRP is to integrate the objectives of these resource areas, provide for the optimum public benefit, and balance competing and sometimes conflicting resource uses. These competing interests and development pressures, coupled with today's environmental awareness, underscore the necessity for a consistent approach to the management of TVA's lands. The specific goals of the NRP include:

1. Aligning TVA's stewardship programs and plans with the Environmental Policy
2. Providing a strategic plan that
 - Guides TVA's resource management decisions and actions
 - Integrates stewardship objectives for optimum public benefits while developing efficiencies for natural resources
 - Strikes a balance between the competing and sometimes conflicting resource uses on TVA-managed lands
3. Increasing the efficiency of environmental reviews of TVA actions
4. Providing TVA staff with a "reference manual" to guide implementation activities
5. Providing clarity and transparency to the public

The geographical scope for biological and cultural resources management and recreation management components of the NRP is limited to the approximately 293,000 acres of reservoir lands, active and former fossil and nuclear properties, Raccoon Mountain Pumped Storage Plant, and Buffalo Mountain Wind Power Project site managed by TVA. The NRP would be implemented at TVA's fossil and nuclear properties and at Raccoon Mountain and Buffalo Mountain as interim and/or secondary management techniques, as appropriate.

These properties will remain power assets, and primary management will remain as power generation. It would be at TVA's discretion to determine the appropriate programs and activities within the NRP for implementation on these power properties.

Recreation management focuses on the recreation facilities and programs managed by TVA and stream access sites located near TVA-managed reservoirs.

The reservoir lands planning component of the NRP addresses the approximately 293,000 acres of TVA-managed reservoir lands. The geographical scope for the water resource management component of the NRP includes the entire Tennessee River watershed and focuses on those discretionary programs and activities implemented by TVA to improve reservoir and watershed water quality.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

TVA has evaluated four alternatives for the NRP. Alternatives were developed using information from multidisciplinary TVA technical and advisory teams and from the public comments obtained during the scoping process described in Chapter 1. Under each of the alternatives, the following conditions would apply:

TVA would continue to conduct environmental reviews to address site-specific issues prior to the approval of any proposed activity on lands under TVA's control. Future activities and land uses would continue to be guided by the TVA Land Policy and other relevant policies. In its reservoir lands planning activities, the allocation of uses on TVA property is not intended to supersede deeded landrights that may be held by others.

Alternative A — No Action Alternative. Under the No Action Alternative, TVA would continue to implement the existing stewardship programs and tools, aligning with existing policies and strategies, and would continue to apply the existing methodology when planning lands along TVA reservoirs. This alternative emphasizes regulatory and technical requirements, assessments of TVA-managed resources and partnerships, and capital projects associated with TVA-managed recreational facilities. TVA would manage and support stewardship activities on its lands through existing prioritization methods that consider recreational needs and public safety while meeting applicable regulations and policies.

Alternative B — Custodial Management. Under Alternative B, specific programs that address safety and compliance with TVA's mission, applicable laws, regulations, and executive orders (EOs) and policies would be implemented. As laws, regulations, policies and EOs are created or amended; implementation activities would be revised to reflect this. In those areas in which TVA would discontinue programs or projects, existing contractual agreements relating to those programs or projects would be honored. In addition, TVA would focus on transitioning the management of certain recreational facilities through contractual agreements or would close the facilities. This alternative is consistent with custodial management, as described in the NRP.

Alternative C — Flagship Management. Under Alternative C, TVA would explore, pilot test, and implement new strategies for enhancing stewardship programs and developed recreational facilities while emphasizing sustainable technologies. Similarly, activities or projects that address safety and compliance with TVA's mission and applicable laws, regulations, policies, and EOs would be implemented. As these change, implementation activities would be revised accordingly.

Alternative D — Blended Management. Under Alternative D, TVA has identified key programs that are integral toward enhancing future implementation efforts while maintaining activities and projects that address safety and comply with TVA's mission and applicable laws, regulations, policies, and EOs. This alternative takes into account the interconnectivity of each resource area and their supporting programs, helping to establish a foundation by which TVA may implement greater levels of programs in the future.

Within this alternative, all program options have been placed into one of three priority level groupings as described in the NRP. The first grouping, custodial management, reflects those program options described under Alternative B. This level of effort represents the baseline at which TVA proposes to implement for its natural resource programs. The second grouping, blended management, identifies additional programs and activities that are integral to the successful implementation of the NRP and are considered to be a springboard to help TVA to effectively and efficiently implement additional activities as partnerships and/or funding allows. The third grouping, advanced management, reflects program options that could be considered for future execution depending upon available opportunities, partnership, and resources and on the condition that these programs do not undermine TVA's ability to conduct the programs in the custodial and blending management groupings. The programs in the advanced management grouping are higher levels of implementation effort that were not included in the blended management grouping.

AFFECTED ENVIRONMENT

The geographical scope will be referred to further as TVA-managed lands. Moreover, the Tennessee River watershed and TVA's power service area (PSA) will be collectively referred to as the TVA region, the primary study area. This area comprises 202 counties and approximately 59 million acres. In addition to the Tennessee River watershed, it covers parts of the Cumberland, Mississippi, Green, and Ohio rivers where TVA power plants are located. For some resources, such as air quality, and for the consideration of climate change issues, the assessment area extends beyond the TVA region. For some socioeconomic resources, the study area consists of the 170 counties where TVA is a major provider of electric power and Muhlenberg County, Kentucky, where the TVA Paradise Fossil Plant is located.

Recreation. Recreation demand is driven by population levels, recreation participation rates, and innovations in recreation equipment. Analysis of the current United States Census data provides estimates over the next 20 years of population increases of between 18 and 19 percent for the TVA region. Assuming that current participation rates remain relatively constant, recreation demand is anticipated to grow in direct proportion to the population. Public pressure would increase on TVA-managed lands, shoreline, and waterways in response to this demand.

Natural Areas. Natural areas occurring on TVA-managed lands include both TVA- and non-TVA-managed areas and ecologically significant sites. TVA managed natural areas include small wild areas, habitat protection areas, ecological study areas, and wildlife observation areas. These natural areas are further defined in Chapter 4. TVA manages 154 natural areas and conducts specific management activities that are suitable for a particular natural area designation. Examples of management activities are located in Chapter 2. There are 229 natural areas and ecologically significant sites occurring on or adjacent to TVA-managed lands that are managed by other agencies under contractual agreements.

Terrestrial Ecology. For the purpose of this EIS, the terrestrial ecology discussion focuses on the lands within the TVA region. The TVA region encompasses nine ecoregions. The terrain across the Valley is diverse from mountains to bottomland hardwoods and cypress swamps. This area, rich in biodiversity, is composed of numerous habitats and plant communities, which house approximately 4,000 species of herbs, shrubs, and trees. Much of the region is heavily forested, and three forest regions and two subregions are recognized.

Approximately 55 species of reptiles, 72 amphibians, 182 species of breeding birds, and 76 species of mammals occur in these ecoregions. Although some wildlife species have widespread distributions, others have restricted ranges unique to specific ecoregions. For example, forest habitats in the Blue Ridge Mountains provide globally significant habitat for many species, especially amphibians and land snails. The high elevations found in the Blue Ridge ecoregion also provide habitat for relict populations of animals typically found in more northern latitudes.

Wetlands. Wetland resources vary in their types and extents across these ecoregions due to the influence of geology, topography, and land use patterns. In the Blue Ridge, Ridge and Valley, and Central Appalachians ecoregions located in eastern portions of the TVA region, wetlands occupy a relatively small percent of the landscape relative to uplands. These ecoregions are typically marked by relatively steep topography and deeply incised stream channels. Wetlands are typically small and isolated or linear in feature and associated with the floodplain areas of streams, rivers, and creeks. Moving westward across the TVA region, the topography levels out, and wetlands become more common. Broad, flat floodplain areas are common features, and various types of wetland habitats, especially bottomland hardwood forested wetlands, are widespread.

Water Quality. Water quality is generally good in the TVA region. Most beneficial uses (as designated by the states) are supported in most water bodies, including fish and aquatic life, public and industrial water supply, waste assimilation, agriculture, and water-contact recreation. Of the approximately 42,000 perennial stream miles in the Valley, 8,500 miles are not fully supporting their designated uses (compiled from seven Valley states' 2008 305(b) reports), and 113,000 acres of lakes and reservoirs (compiled from seven Valley states' 305(b) reports [2008 and 2010]) (out of approximately 660,000 total acres) are not supporting their uses.

Aquatic Ecology. Rivers located in the TVA region support a large variety of freshwater fishes and invertebrates (including freshwater mussels, snails, crayfish, and insects). Due to the number of major river systems found in this region, the Southeastern United States is recognized as a globally important area for freshwater biodiversity. The EIS discussion of affected aquatic environments focuses on two distinct categories of water bodies: the TVA reservoir system within the Tennessee River drainage and "free-flowing" streams that are unaffected (or relatively unaffected) by the presence of TVA's dams and reservoirs.

Endangered and Threatened Species. *Aquatic Species.* The Tennessee River and its tributaries contain many species that are federally listed as threatened or endangered. Many more species are listed by the states in the Tennessee River drainage. A summary of the number of state- and federally listed aquatic animal species known from the Tennessee River drainage is presented in Chapter 3. None of these species are known to occur on the TVA-managed lands that are a part of this plan. However, many of these species occur in streams and reservoirs adjacent to these lands. *Terrestrial Animal Species.* There are 33 federally listed, protected or candidate terrestrial animal species

occurring in the TVA region. Of these species, only five potentially occur on TVA-managed lands. These species include bald eagle, gray bat, interior least tern, piping plover, and Indiana bat, listed in decreasing prevalence of occurrence. A sixth species, red-cockaded woodpecker, historically occurred on or near TVA-managed lands. In recent decades, this species only occurs in isolated pockets in extreme southern portions of the region. *Plants.* There are 44 federally listed as endangered and threatened species, six federal candidate species, and 996 state-listed plant species are known to occur within the TVA region. Over 80 percent of the federally listed species occur within four of the nine ecoregions: Blue Ridge with 27 percent, Southwestern Appalachians with 25 percent, Interior Plateau with 18 percent, and Ridge and Valley with 17 percent. Of the federally listed plant species, 11 taxa have the potential to be impacted by TVA actions associated with the NRP.

Cultural Resources. The Tennessee Valley enjoys a rich cultural heritage. The temperate climate and abundant resources attracted nomadic hunters into the region as early as 10,000 years ago. Through centuries of continuity and conflict, a rich diversity of Native American cultures evolved. Archaeological evidence of these cultures is found throughout the region, scattered over the region's landscape and buried under layers of flood-borne silt. TVA is responsible for many historic properties that are located on TVA-managed lands or involved with the many different projects that take place in the TVA region. Various laws require TVA to manage, protect, and preserve these resources to the extent possible and mitigate impacts to these resources due to TVA-related projects. Archaeological survey of lands by TVA reservoirs varies across the Valley, and over 11,500 archaeological sites have been recorded to date. Approximately 5,320 historic structures have been recorded on or near TVA-managed public lands.

Land Use. The Tennessee River system has its headwaters in the mountains of western Virginia and North Carolina, eastern Tennessee, and northern Georgia. The Valley watershed includes approximately 40,913 square miles. This area lies mostly in the state of Tennessee, with portions in six other states—Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia. TVA's PSA includes a total of 76,738 square miles, with 44,783 square miles extending outside the Valley. TVA-managed lands adjacent to reservoirs include approximately 293,000 acres or 458 square miles encompassing parts of the seven Valley states.

Prime Farmland. In the TVA region, approximately 17,360,515 acres are designated as prime farmland, farmland of statewide importance, or farmland of local importance. On average, this represents 33.2 percent of the total acreage farmed within the seven-state service area. On average, prime farmland surrounding most reservoirs (where soils data are available) is less than 12 percent of the acreage.

Visual Resources. TVA-managed lands include dam reservations, water bodies with floodrights, and tracts of land adjacent to the water bodies that range in size from tenths of an acre to several hundred acres. Since the scenic features of the landscape are not limited by land boundaries, landscape character extends across TVA-managed lands and other public and private lands alike. Large parts of the Tennessee Valley have the characteristics of a scenic, rural countryside.

Floodplains. As stated in the TVA Act, one of the primary reasons that TVA was established was to "control the destructive floodwater in the Tennessee River and the Mississippi River Basins." A series of dams and reservoirs was constructed to make flood control a reality. The operation of the integrated reservoir system substantially lowers the risk of flooding in the Valley and in the Ohio and Mississippi rivers basins.

Socioeconomics and Environmental Justice. The total population of the region is about 10.6 million, as of 2009. The larger population concentrations in the region tend to be located along the corridors of the Tennessee, French Broad, Cumberland, and Tennessee rivers. In 2008, the total employment for the study area was almost 6.1 million. In 2008, the per capita personal income for the study area was \$32,949, about 82 percent of the national average of \$40,166. However, the 2008 average income levels vary widely across the study area. Minorities constitute 21.2 percent of the population within the study area. However, the distribution within the region is very uneven. Minorities are a relatively large share of the total population in most counties located in the western portion of the study area. In 2008, the poverty level for the study area was estimated to be 15.9 percent, higher than the national average of 13.2 percent. County poverty levels are higher than the regional average more frequently in the western part of the region and in counties along or near the Tennessee-Kentucky border.

Navigation. Development of the Tennessee River navigation channel was essentially completed in 1945 with the construction of a series of 10 dams and navigation locks, extending commercial navigation from Knoxville, Tennessee, to Paducah, Kentucky, a distance of 652 miles. The Tennessee River waterway is an integral part of the interconnected, 12,000-mile National Inland Waterway System.

Air Quality. Air quality in the TVA region is generally good and has steadily improved over the last 30 years. There are currently no areas in the TVA region (nonattainment areas) that do not meet air quality standards for carbon monoxide, lead, nitrogen dioxide, sulfur dioxide (SO₂), ozone, and larger particulate matter (PM₁₀). A few counties in the eastern half of the region are designated as nonattainment for fine particulate matter (PM_{2.5}). Portions of the TVA region are expected to be designated as nonattainment for SO₂ and ozone standards, which were recently made more stringent.

Climate. The TVA region has a generally mild climate. Both annual average temperature and precipitation vary from year to year and neither shows significant long-term increasing or decreasing trends. Wind speeds are generally light with higher speeds in winter and spring and lower speeds in summer and autumn.

ENVIRONMENTAL CONSEQUENCES

Regardless of the alternative selected, some resources would not be directly affected either adversely or beneficially by the NRP, while other resources would likely be directly or indirectly affected in a minor way or to moderate degree across the range of alternatives. The relative impacts for each resource area are shown in figures presented in Chapter 5.

It is estimated that Alternative C would create the greatest potential beneficial impacts for the following resource areas: recreation, natural areas, wildlife, wetlands, water quality, listed aquatic species, listed terrestrial species, cultural resources, land use, prime farmland, and socioeconomics. Alternative D would create the greatest potential beneficial impacts for visual resources, listed plant species, and vegetation.

Alternative A would create the least potential beneficial impacts for the following resource areas: natural areas, vegetation, wildlife, wetlands, listed aquatic species, listed terrestrial species, listed plants, cultural resources, land use, prime farmland, and visual resources. Alternative B would create the least potential beneficial impacts for socioeconomics, water quality, and recreation. The potential impacts to floodplains, navigation, air quality, and climate would be relatively similar under all alternatives. Table S-1 provides a comparison

of resources and explains how each alternative could affect the resource. Relative beneficial impacts to the resource are shown in figures in Chapter 5.

Table S-1. Summary of Potential Effects by Alternative

Resource	Alternative A (No Action)	Alternative B (Custodial Management)	Alternative C (Flagship Management)	Alternative D (Blended Management)
Developed Recreation	Beneficial impacts but insufficient to meet recreation demand	Growing gap in meeting recreation demand	Increase in the quality and quantity of recreation opportunities	Similar to Alternative A
Dispersed Recreation	Negative impact due to increased pressure on natural resources	Beneficial impact in meeting recreation demand and managing impacts	Provides the most beneficial impact in meeting recreation demand and managing impacts	More beneficial than Alternative B but less than Alternative C
Natural Areas	Slightly adverse impacts due to lack of active management	Less adverse than Alternative A	Beneficial impacts due to proactive management	Less beneficial than Alternative C
Terrestrial Ecology — Plants	Negative Impacts anticipated due to spread of nonnative invasive plants (NNIPs)	Beneficial impact due to increase in NNIP management	Provides the greatest beneficial impact due to increase in NNIP management	Less beneficial than Alternative C
Terrestrial Ecology — Wildlife	No adverse impacts			
Wetlands	No significant impacts		Beneficial impacts due to identification, protection, and restoration efforts	Provides the greatest beneficial impacts
Water Quality	Beneficial impacts due to the Water Resource Management programs	Adverse impacts due to the reduction in Water Resource Management programs	Provides the greatest beneficial impacts	More beneficial than Alternative B but less than Alternative C
Aquatic Ecology	Beneficial impacts due to ongoing stewardship management	No significant impacts	More beneficial than Alternatives A and B	Provides the greatest beneficial impacts
Endangered and Threatened Species	No impacts to listed aquatic species and terrestrial animal species; impacts to listed plant species due to the spread of NNIPs			

Resource	Alternative A (No Action)	Alternative B (Custodial Management)	Alternative C (Flagship Management)	Alternative D (Blended Management)
Cultural Resources	Potential negative impacts to historic properties with the exception of programs associated with Archaeological Resources Protection Act	Less negative impacts than Alternative A	Greatest beneficial impacts due to proactively promoting protection and preservation of resources	More beneficial than Alternatives A and B but less than Alternative C
Land Use	Slightly adverse impacts due to lost opportunities for recreation and natural resource protection	Greatest potential for adverse impacts	Provides the least potential for adverse impacts	Similar to Alternative C
Prime Farmland	Beneficial impacts due to biological and cultural resources programs	Greater beneficial impacts than Alternative A	Greatest beneficial impacts	More beneficial than Alternatives A and B but less than Alternative C
Visual Resources	Reduction in the scenic attraction of TVA-managed lands	Increasingly beneficial impact in the scenic attraction of TVA-managed lands	Most beneficial impact in the scenic attraction of TVA-managed lands	Similar to Alternative C
Floodplains	Negligible loss of flood control and power storage			
Socioeconomics and Environmental Justice	No impacts	Small negative impacts to the economy and quality of life	Positive impacts to the economy and quality of life	Less beneficial than Alternative C
Navigation	Minimal impacts to commercial navigation			
Air Quality	No negative impacts			
Climate	No impacts			

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ABBREVIATIONS, ACRONYMS, AND SYMBOLS

§	Section
<	Less Than
≤	Less Than or Equal To
>	Greater Than
°C	Degree Celsius
°F	Degree Fahrenheit
ADAAG	Americans With Disabilities Act Accessibility Guidelines
AIRFA	American Indian Religious Freedom Act
ARPA	Archaeological Resources Protection Act
BFN	Browns Ferry Nuclear Plant
BMPs	Best Management Practices
C&GCI	Clean and Green Campground Initiative
CFR	Code of Federal Regulations
CLCA	Comprehensive Land Conditions Assessment
CO₂	Carbon Dioxide
CWA	Clean Water Act
CWI	Clean Water Initiative
CVLP	Comprehensive Valleywide Land Plan
DDT	Dichlorodiphenyltrichloroethane
DO	Dissolved Oxygen
DU	Ducks Unlimited
EA(s)	Environmental Assessment(s)
EE	Environmental Education
e.g.	Latin term, <i>exempli gratia</i> , meaning “for example”
EIS	Environmental Impact Statement
Environmental Policy	TVA 2008 Environmental Policy
EO(s)	Executive Order(s)
EPRI	Electric Power Research Institute
ESA	Endangered Species Act
ETC	Endangered, Threatened, and Candidate
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
F&TF	Foundation and Trust Fund
GHG(s)	Greenhouse Gas(es)
GIS	Geographic Information System
HPA	Habitat Protection Area
HU	Hydrologic Unit
i.e.	Latin term, <i>id est</i> , meaning “that is”
IBI	Index of Biotic Integrity
IMBA	International Mountain Bicycling Association
IPCC	Intergovernmental Panel on Climate Change
IRM	Integrated Resource Management
IRP	Integrated Resource Plan
Land Policy	TVA 2006 Land Policy
LCA	Land Conditions Assessment
LNT	Leave No Trace
LSMNC	Land Stewardship Maintenance Needs Checklist
MOU(s)	Memorandum(s) of Understanding
NAAQS	National Ambient Air Quality Standards
NABCI	North American Bird Conservation Initiative
NAGPRA	Native American Graves Protection and Repatriation Act
n.d.	Indicates “no date,” or date which Web site was accessed is unknown
NEMO	Nonpoint Education for Municipal Officials

NEPA	National Environmental Policy Act
NGOs	Nongovernment Organizations
NHPA	National Historic Preservation Act
NNIP(s)	Nonnative Invasive Plant(s)
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRP	Natural Resource Plan
NSR	New Source Review
NWI	National Wetlands Inventory
NWS	National Weather Service
NWSG	Native Warm-Season Grasses
O&M	Operation and Maintenance
PA	Programmatic Agreement
PCBs	Polychlorinated Biphenyls
PIF	Partners in Flight
PSA	Power Service Area
PSD	Prevention of Significant Deterioration
QGP	Quality Growth Program
RLA	Rapid Lands Assessment
RLCA	Rapid Land Conditions Assessment
RLMP(s)	Reservoir Land Management Plan(s)
ROS	<i>Reservoir Operations Study</i>
RRSC	Regional Resource Stewardship Council
SE-EPPC	Southeast Exotic Pest Plant Council
SFI	Sport Fishing Index
SHPO(s)	State Historic Preservation Officer(s)
Sic	Latin word meaning “in such a manner”; it is used to indicate that an incorrect phrase or meaning in the quote has been reproduced verbatim from the original and is not a transcription error
SIP(s)	State Implementation Plan(s)
SMI	Shoreline Management Initiative
SMP	Shoreline Management Policy
SMZ(s)	Streamside Management Zone(s)
SQN	Sequoyah Nuclear Plant
STM	Stream and Tailwater Monitoring
SWA	Small Wild Area
TCPs	Traditional Cultural Properties
TDA	Tennessee Department of Agriculture
TDEC	Tennessee Department of Environment and Conservation
Trading	Water Pollutant Trading
TRI	Targeted Reservoir Initiative
TVA or the Agency	Tennessee Valley Authority
TVA Board	Tennessee Valley Authority Board of Directors
TVCMI	Tennessee Valley Clean Marina Initiative
TWI	Targeted Watershed Initiatives
TWRA	Tennessee Wildlife Resources Agency
Unit Plans	Resource Management Unit Plans
U.S.	United States
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Valley	Tennessee River Valley
VS	Vital Signs
WHC	Wildlife Habitat Council
WOA	Wildlife Observation Area
WS	Wildlife Services

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